

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A microorganism cotransformed with a plasmid vector containing a gene expressing the HIV nucleocapsid protein, and a plasmid vector containing the HIV psi ( $\psi$ ) sequence and a reporter gene located downstream of the HIV psi ( $\psi$ ) sequence, wherein reporter gene expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid protein.

2. (Currently Amended) The microorganism of claim 1 wherein the plasmid vector containing a gene expressing the HIV nucleocapsid protein is pJCl.

3. (Previously Presented) The microorganism of claim 1 wherein the HIV psi ( $\psi$ ) sequence is selected from the group consisting of SL1234 (SEQ ID NO: 2), SL234 (SEQ ID NO: 5), SL23 (SEQ ID NO: 4), and SL12 (SEQ ID NO: 3).

4-11. Canceled.

4 ~~12~~. (Currently Amended) A microorganism comprising *E. coli* JM109 (KCCM-10194) cotransformed with a vector pJC1 expressing the HIV nucleocapsid protein, and a vector pNHlPsi(SL1234) containing the HIV psi( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence, wherein  $\beta$ -galactosidase expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid

protein.

- 5 14. (Currently Amended) A microorganism cotransformed with [[a]] the vector pJC1 expressing the HIV nucleocapsid protein, and a vector pNHIPsi(SL234) containing the HIV psi ( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence, wherein  $\beta$ -galactosidase expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid protein.
- 6 14. (Currently Amended) A microorganism cotransformed with [[a]] the vector pJC1 expressing the HIV nucleocapsid protein, and a vector pNHIPsi(SL23) containing the HIV psi ( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence, wherein  $\beta$ -galactosidase expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid protein.
- 7 14. (Currently Amended) A microorganism cotransformed with [[a]] the vector pJC1 expressing the HIV nucleocapsid protein, and a vector pNHIPsi(SL12) containing the HIV psi ( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence, wherein  $\beta$ -galactosidase expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid protein.
- 8 16. (Currently Amended) A microorganism transformed with a vector pNHIPsi(SL1234) containing the HIV psi ( $\psi$ ) gene and  $\beta$ -galactosidase reporter sequence (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence, wherein  $\beta$ -galactosidase expression is downregulated

by the specific binding interaction of the psi sequence with the nucleocapsid protein.

9 ~~1/~~. (Currently Amended) A microorganism wherein both a plasmid vector containing a gene coding for the HIV nucleocapsid protein and a plasmid vector containing the HIV psi ( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene (SEQ ID NO : 1) located downstream of the HIV psi( $\psi$ ) sequence are integrated into a chromosome, wherein  $\beta$ -galactosidase expression is downregulated by the specific binding interaction of the psi sequence with the nucleocapsid protein.

10 ~~1/~~. (Currently Amended) A method ~~for~~ of screening for HIV packaging inhibitors which comprises the steps of:

- (i) culturing the cotransformed microorganism of claim 1;
- (ii) treating the said cotransformed microorganism with putative compounds or compositions of HIV inhibitors; and,
- (iii) measuring the degree of change in  $\beta$ -galactosidase reporter gene expression in the culture, wherein an increase in reporter gene expression in the presence of the compound or composition compared to reporter gene expression in the absence of the compound or composition indicates the compound or composition inhibits the specific binding interaction between the HIV nucleocapsid protein and the psi sequence.

11 ~~1/~~. (Previously Presented) The method of claim 1~~0~~ wherein the cotransformed microorganism is *E. coli* JM109 (KCCM-10194).

20-21. (Canceled)

~~12~~ <sup>12</sup> ~~21~~. (Previously Presented) The microorganism of claim 1, wherein the reporter gene is  $\beta$ -galactosidase.

~~13~~ <sup>12</sup> ~~23~~. (New) The microorganism of claim ~~22~~ <sup>12</sup> wherein the  $\beta$ -galactosidase reporter gene is SEQ ID NO: 1.

~~14~~ <sup>13</sup> ~~24~~. (New) The microorganism of claim ~~23~~ <sup>13</sup> wherein the plasmid vector containing the HIV psi( $\psi$ ) sequence and  $\beta$ -galactosidase reporter gene is selected from the group consisting of pNHIPsi(SL1234), pNHIPsi(SL234), pNHIPsi(SL23), pNHIPsi(SL12), and pNHIPsi(SL34).